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10/722,591	11/28/2003	Judi Bryant	SCH-1995	5673

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EXAMINER
BALASUBRAMANIAN, VENKATARAMAN

ART UNIT	PAPER NUMBER
1624	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/11/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/722,591

Applicant(s)

BRYANT ET AL.

Examiner

Venkataraman Balasubramanian

Art Unit

1624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3-12, 17-20, 26-30 and 32-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10 and 11 is/are allowed.
- 6) ☒ Claim(s) 3, 4, 6, 7, 9, 12, 17-20, 26-30 and 32-38 is/are rejected.
- 7) ☒ Claim(s) 5 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/16/2007 has been entered. Submission of printout of all structures listed in US 2003/0171359 is also gratefully acknowledged.

### ***Claim Objections***

Claims 18, 28, 37 and 38 are objected to, as it is not clear what is intended by "Sarkom" in these claims. An appropriate correction is needed.

Claim 9 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Note claim 9 includes halogen as a choice for A or B, which is outside the scope of claim 6.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 1624

Claims 17, 18, 27 and 28 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for treating Kaposi's sarcoma, Hodgkin's disease and leukemia does not reasonably provide enablement for treatment any or all cancers linked with the various mode of action generically embraced in the claim language. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

The instant claims are drawn to a method of treating cancer, solid tumor and metastasis growth in a patient of based on the mode of action as inhibitors of AKT, PDK, CHK or VEGF-R etc., which as recited reads on any or all cancers for which there is no enabling disclosure. The scope of the claims includes treatment of various cancers, which is not adequately enabled solely based on the activity of the compounds, provided in the specification at pages 55-61.

Instant claims, as recited, are reach through claims. A reach through claim is a claim drawn to a mechanistic, receptor binding or enzymatic functionality in general format and thereby reach through a scope of invention for which they lack adequate written description and enabling disclosure in the specification.

In the instant case, based on the inhibition of Met activation by the instant compounds, instant claims reaches through inhibiting and treating any or all diseases in general and thereby they lack adequate written description and enabling disclosure in the specification.

More specifically, in the instant case, based on the mode of action of instant

Art Unit: 1624

compounds as inhibitor of AKT, PDK, CHK or VEGF-R etc., based on limited assay, it is claimed that treating any or all diseases including any or all cancers in general, which there is no enabling disclosure.

The scope of the claims, in addition to treating any or all cancer due to Met activation inhibition for which there is no enabling disclosure. In addition, the scope of these claims includes treatment of various cancers as the term cancer includes lung cancer, bone cancer, pancreatic cancer, skin cancer, cancer of the head or neck, cutaneous or intraocular melanoma, uterine cancer, ovarian cancer, rectal cancer, cancer of the anal region, stomach cancer, colon cancer, breast cancer, uterine cancer, carcinoma of the fallopian tubes, carcinoma of the endometrium, carcinoma of the cervix, carcinoma of the vagina, carcinoma of the vulva, Hodgkin's disease, cancer of the esophagus, cancer of the small intestine, cancer of the endocrine system, cancer of the thyroid gland, cancer of the parathyroid gland, cancer of the adrenal gland, sarcoma of soft tissue, cancer of the urethra, cancer of the penis, prostate cancer, chronic or acute leukemia, lymphocytic lymphomas, cancer of the bladder, cancer of the kidney or ureter, renal cell carcinoma, carcinoma of the renal pelvis, neoplasms of the central nervous system (CNS), primary CNS lymphoma, spinal axis tumors, brain stem glioma, pituitary adenoma, or a combination of one or more of the foregoing cancers, which are not adequately enabled solely based on the activity of the compounds provided in the specification. Thus, it is beyond the skill of oncologists today to get an agent to be effective against cancers generally. Also see the PTO website

<<<http://www.uspto.gov/web/offices/pac/dapp/1 pecba.htm#7>>>

ENABLEMENT DECISION TREE, Example F, situation 1) which is directed to the scope of cancers.

The instant compounds are disclosed have AKT, PDK, CHK or VEGF-R etc., inhibitory activity & inhibition of phosphorylation of protein. It is therefore recited that the instant compounds are useful in treating any or all cancers for which applicants provide no competent evidence. Reading specification it appears that instant compound is useful for treating all sorts of cancers for which applicants have not provided any experimental support or nexus. The term cancer includes Prior art search and those cited in the Information disclosure statement do not lend support to, except for treating diabetes, treatments of all diseases embraced in the claim language. That a single class of compounds can treat all or any disease of the said organs is an incredible finding for which applicants have not provided enabling disclosure and the Information Disclosure Statement suggest the use of these inhibitors is still under experimental stage and speculative in nature. Prior art search also shows that further studies are needed. See Kim et al. Differentiation and Gene Regulation 508-514, 2000 and Warner et al., Molecular Cancer Therapeutics 2: 589-595, 2003. Furthermore, the applicants have not provided any competent evidence that the instantly disclosed tests are highly predictive for all the uses disclosed and embraced by the claim language for the intended host.

The scope of the claims involves all of the thousands of compounds of claim 6 as well as the thousand of cancers embraced by inhibitors of kinases such as AKT, PDK, CHK or VEGF-R etc., No compound has ever been found to treat cancers of all types generally. Since this assertion is contrary to what is known in medicine, proof must be

Art Unit: 1624

provided that this revolutionary assertion has merits. The existence of such a "compound" is contrary to our present understanding of pathology of disease and their treatment.

Note substantiation of utility and its scope is required when utility is "speculative", "sufficiently unusual" or not provided. See *Ex parte Jovanovics*, 211 USPQ 907, 909; *In re Langer* 183 USPQ 288. Also note *Hoffman v. Klaus* 9 USPQ 2d 1657 and *Ex parte Powers* 220 USPQ 925 regarding type of testing needed to support in vivo uses.

Next, applicant's attention is drawn to the Revised Utility and Written Description Guidelines, at 66 FR 1092-1099, 2001 wherein it is emphasized that 'a claimed invention must have a specific and substantial utility'. The disclosure in the instant case is not sufficient to enable the instantly claimed method treating solely based on the inhibitory activity disclosed for the compounds. The state of the art is indicative of the requirement for undue experimentation. See *Mass, R. D.*, *Int. J. Radiation Oncology Bio. Phys.* Vol. 58(3): 932-940, 2004, *Fabbro et al. Pharmacology & therapeutics* 93, 79-98, 2002 and *Tas et al.*, *Curr. Pharm. Des.* 11(5): 581-611, 2005.

Also, note MPEP 2164.08(b) which states that claims that read on "... significant numbers of inoperative embodiments would render claims nonenabled when the specification does not clearly identify the operative embodiments and undue experimentation is involved in determining those that are operative.". Clearly that is the case here.

In evaluating the enablement question, several factors are to be considered. Note *In re Wands*, 8 USPQ2d 1400 and *Ex parte Forman*, 230 USPQ 546. The factors

Art Unit: 1624

include: 1) The nature of the invention, 2) the state of the prior art, 3) the predictability or lack thereof in the art, 4) the amount of direction or guidance present, 5) the presence or absence of working examples, 6) the breadth of the claims, and 7) the quantity of experimentation needed.

1) The nature of the invention: Therapeutic use of the compounds in treating several diseases of that require AKT, PDK, CHK or VEGF-R etc., inhibitory activity as well as inhibition of phosphorylation of protein

2) The state of the prior art: Recent publications suggest that AKT, PDK, CHK or VEGF-R etc., are still in experimental stage. See Mass, R. D., *Int. J. Radiation Oncology Bio. Phys.* Vol. 58(3): 932-940, 2004, Fabbro et al. *Pharmacology & therapeutics* 93, 79-98, 2002 and Tas et al., *Curr. Pharm. Des.* 11(5): 581-611, 2005.

3) The predictability or lack thereof in the art: Applicants have not provided any competent evidence or disclosed tests that are highly predictive for the pharmaceutical use for the therapeutic effect of the instant compounds. Pharmacological activity in general is a very unpredictable area. Note that in cases involving physiological activity such as the instant case, "the scope of enablement obviously varies inversely with the degree of unpredictability of the factors involved". See *In re Fisher*, 427 F.2d 833, 839, 166 USPQ 18, 24 (CCPA 1970).

4) The amount of direction or guidance present and 5) the presence or absence of working examples: Specification has no working examples to show therapeutic effect and the state of the art is that the effects of AKT, PDK, CHK or VEGF-R etc., inhibitors are still in experimental stage



Art Unit: 1624

6) The breadth of the claims: The instant claims embrace treatment of several cancers with large genus of compounds.

7) The quantity of experimentation needed would be an undue burden to one skilled in the pharmaceutical arts since there is inadequate guidance given to the skilled artisan, regarding the pharmaceutical use, for the reasons stated above.

Thus, factors such as "sufficient working examples", "the level of skill in the art" and "predictability", etc. have been demonstrated to be sufficiently lacking in the instant case for the instant method claims. In view of the breadth of the claims, the chemical nature of the invention, the unpredictability of ligand-receptor interactions in general, and the lack of working examples regarding the activity of the claimed compounds towards treating the variety of diseases of the instant claims, one having ordinary skill in the art would have to undergo an undue amount of experimentation to use the instantly claimed invention commensurate in scope with the claims.

MPEP §2164.01(a) states, "A conclusion of lack of enablement means that, based on the evidence regarding each of the above factors, the specification, at the time the application was filed, would not have taught one skilled in the art how to make and/or use the full scope of the claimed invention without undue experimentation. In re Wright, 999 F.2d 1557, 1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993)." That conclusion is clearly justified here and undue experimentation will be required to practice Applicants' invention.

This rejection is same as made in the previous office action but now limited pending method of use claims and cancer.

Art Unit: 1624

Applicants' argument to overcome this rejection is not persuasive.

First of all, as noted above, these claims are reach through claims. Based on the mode of action these claims reach through treating any or all cancer including solid tumors for which there is no enabling disclosure.

Secondly, prior art does not teach that any known anti-cancer can be used to treat any or all cancer.

Applicants' have not provided any non-patent literature to support treating all cancers claimed.

Hence, this rejection is deemed as proper and is maintained.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 6, 7 and 33-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Blankley et al. US 5,733,914.

See example 99 in column 53.

Claims 6, 7, 32 and 34-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Ito et al. US 4,814,338.

Art Unit: 1624

Ito et al., teaches several alkoxy substituted pyrimidine compounds for use as pesticides. See formula I and note when  $Z^1$  is an alkoxy and  $Z^2$  is hydrogen, the compounds taught by Ito et al., include instant compounds. See column 4, Table I, examples 3, 13 and 19.

Claims 6 and 33-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Denny et al. US 7,169,778. Note WO 01/19825 is a 102(b) reference.

See column 43, example 2, and intermediate 3.

Claims 3, 6, 12 and 32-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Bornemann et al. US 7,166,599.

Bornemann teaches several 2,4,5-trisubstituted pyrimidines as kinase inhibitors useful for treating arthritis, which include instant compounds. See column 2, formula I. note the definition of various variable groups. Especially note the  $R_aNR_b$  definition overlaps with instant aniline group,  $R_cNR_d$  overlaps with instant  $X-R^2$  and the  $R_e$  choices include instant  $R_1$  choices. Thus, with the given definition of these groups, compounds taught by Bornemann et al., include instant compounds. See entire document for details of the invention. Particularly see column 2-16 for preferred embodiments and column 24-42 for large number of compounds. Especially see column 30, example 1, compounds 11, 12, 15, 23, 24, 26, 29, 48, 57, 58, 67, 73, 75, 85, 88 and 92, column 38, example 5, compounds 1 and 2, column 39, example 7, compounds 3 & 4 and column 40, example 10, compound b for compounds which include several instant compounds.

Claims 6 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Shibata et al. WO 00/294404.

Art Unit: 1624

Shibata teaches as intermediates two of the instant compounds. See entire document especially see compound I-667 and I-690.

Claims 3, 4, 6, 32-34 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Minn et al. DE 4029650; CA 117:48596, 192. CAPLUS Abstract is also provided.

Minn et al. teaches as several 2-anilino-4-propargyloxy pyrimidines and corresponding propargylamino pyrimidines as agrochemical fungicides. See page 2, formula I. Note when R<sup>1</sup> is hydrogen and X= O or NH, compounds taught by Minn et al., include instant compounds. See entire document. Especially see Table I (pages 17-57) for various compounds made. Particularly see example 3 and compounds 86 and 195.

Claims 6 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson et al. American Chemical Journal 38, 237-49, 1907; CA 1:11862, 1907.(CAPLUS Abstract provided).

See compound shown in the CAPLUS Abstract.

Claims 6 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Naito et al., Chemical & Pharmaceutical Bulletin, 6, 338-343, 1958; CA 53:7084, 1959.(CAPLUS Abstract provided).

See two compounds shown in the CAPLUS Abstract.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 1624

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3, 4, 6, 7, 9, 12 and 32-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bornemann et al. US 7,166,599.

Bornemann teaches several 2,4,5-trisubstituted pyrimidines as kinase inhibitors useful for treating arthritis, which include instant compounds. See column 2, formula I. note the definition of various variable groups. Especially note the  $R_aNR_b$  definition overlaps with instant aniline group,  $R_cNR_d$  overlaps with instant  $X-R^2$  and the  $R_e$  choices include instant  $R_1$  choices. Thus, with the given definition of these groups, compounds

Art Unit: 1624

taught by Bornemann et al., include instant compounds. See entire document for details of the invention. Particularly see column 2-16 for preferred embodiments and column 24-42 for large number of compounds. Especially see column 30, example 1, compounds 11, 12, 15, 23, 24, 26, 29, 48, 57, 58, 67, 73, 75, 85, 88 and 92, column 38, example 5, compounds 1 and 2, column 39, example 7, compounds 3 & 4 and column 40, example 10, compound b for compounds which include several instant compounds.

Bornemann et al. differs in not exemplifying all compounds generically embraced in the formula I shown in column 2, formula I.

However, Bornemann et al. teaches equivalency of those compounds taught in pages 23-86 with those generically recited in for compound of formula I in column 2. Note there is guidance in the various examples to variously substitute the pyrimidine ring with  $R_e$ ,  $R_aNR_b$  and  $R_cNR_d$ , which would include instant compounds.

Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to make compounds using the teachings of Bornemann et al. and expect resulting compounds to possess the uses taught by the art in view of the equivalency teaching outline above.

Claims 3, 4, 6, 7, 9, 12 and 32-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minn et al. DE 4029650; CA 117:48596, 192. CAPLUS Abstract is also provided.

Teachings of Minn et al., as discussed in the above 102 rejection is incorporated herein. As noted above, Minn et al. teaches as several 2-anilino-4-propargyloxy pyrimidines and corresponding propargylamino pyrimidines as agrochemical fungicides.

Art Unit: 1624

See page 2, formula I. Note when  $R^1$  is hydrogen and  $X = O$  or  $NH$ , compounds taught by Minn et al., include instant compounds. See entire document. Especially see Table I (pages 17-57) for various compounds made. Particularly see example 3 and compounds 86 and 195.

Minn et al. differs in not exemplifying all compounds generically embraced in the formula I shown in page 2, formula I.

However, Minn et al. teaches equivalency of those compounds taught in pages 17-57 with those generically recited in for compound of formula I in page 2. Note there is guidance in the various examples to variously substitute the pyrimidine ring, which would include instant compounds.

Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to make compounds using the teachings of Minn et al. and expect resulting compounds to possess the uses taught by the art in view of the equivalency teaching outline above.

Claims 3, 4, 6, 7, 9, 12, 17-20, 26-29 and 32-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dahmann et al. US 2003/0171359.

Dahmann et al. teaches several 2,4,5-trisubstituted pyrimidines as kinase inhibitors useful for treating arthritis, which include instant compounds. See page 2, formula I. note the definition of various variable groups. Especially note the  $R_aNR_b$  definition overlaps with instant aniline group,  $R_cNR_d$  overlaps with instant  $X-R^2$  and the  $R_e$  choices includes instant  $R_1$  choices. Thus with the given definition of these groups, compounds taught by Dahmann et al., include instant compounds. See entire document

Art Unit: 1624

for details of the invention. Particularly see pages 23-86 for large number of compounds. Especially see example 1, which include several instant compounds. See also the list of all structures of Dahmann et al., provided by the applicants. As seen there are number of compounds which differ only in having halogens in the aromatic ring or  $\text{CF}_3$  in the 5-position of the pyrimidine. For example, see answer 147 (document provided by the applicants). It differs only in having a  $\text{CF}_3$  at 5-position instead of halogen hydrogen, nitro etc. But, Dahmann et al., teaches several 5- nitro compounds and thus teaches equivalency of the  $\text{CF}_3$  with nitro in the 5- position. See answer 316. Thus, it would be obvious to one trained in the art to vary the substituents in the 5- position with those generically taught and with those explicitly taught. See answers 819, 842, 869, 901, 907, 910, 912, 913, 924 etc., for compounds which differ from instant compounds in one variation.

In short, Dahmann et al. differs in not exemplifying all compounds generically embraced in the formula I shown in page 2.

However, Dahmann et al. teaches equivalency of those compounds taught in pages 23-86 with those generically recited in for compound of formula I in pages 1-20.

Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to make compounds using the teachings of Dahmann et al. and expect resulting compounds to possess the uses taught by the art in view of the equivalency teaching outline above.

This rejection is same as made in the previous office action. Applicants' traversal is not persuasive. As noted above, with the exemplified compounds and the guidance of



Art Unit: 1624

choices of substituents provided therein one trained in the art would be motivated to make the compounds of the genus of formula I and expect these compounds to have the use taught therein. Hence, this rejection is deemed as proper and is maintained.

Claims 6, 32 and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. 4,814,338.

Teachings of Ito et al., as discussed in the above 102 rejection is incorporated herein. As noted above, Ito et al., teaches several alkoxy substituted pyrimidine compounds for use as pesticides. See formula I and note when  $Z^1$  is an alkoxy and  $Z^2$  is hydrogen, the compounds taught by Ito et al., include instant compounds. See column 4, Table I, examples 3, 13 and 19. In addition, Ito et al., teaches compounds wherein  $Z^2$  is halogen. See examples 1, 4, 12, 16, 17 and 20.

Instant compounds require a carboxyl group at 2 or 4 position for  $R_1$  and an amino at other available position for  $R_2$ .

While said compound(s) doesn't anticipate the scope of instant claims, they are very closely related, being positional isomers of compounds i.e. 5-halogen of instant  $R_1$  vs 6-halogen in the pyrimidine ring of the reference. However, positional isomers are not deemed patentably distinct absent evidence of superior or unexpected properties. See In re Crounse, 150 USPQ 554; In re Norris 84 USPQ 458; In re Finely 81 USPQ 383 and 387; Ex parte Engelhardt, 208 USPQ 343; Ex parte Henkel, 130 USPQ 474, regarding positional isomers.

Thus it would have been obvious to one skilled in the art at the time of the invention was made to expect instant compounds to possess the utility taught by the applied art in view of the close structural similarity outlined above.

### ***Allowable Subject Matter***

Claims 10, 11 and 26 are allowed. Claims 5 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### **Conclusion**

Any inquiry concerning this communication from the examiner should be addressed to Venkataraman Balasubramanian (Bala) whose telephone number is (571) 272-0662. The examiner can normally be reached on Monday through Thursday from 8.00 AM to 6.00 PM. The Supervisory Patent Examiner (SPE) of the art unit 1624 is James O. Wilson, whose telephone number is 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAG. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

Application/Control Number: 10/722,591

Page 18

Art Unit: 1624

have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-2 17-9197 (toll-free).

*Venkataraman Balasubramanian*  
Venkataraman Balasubramanian

3/30/2007